

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application. Changes to the claims are shown with additions double underlined and deletions in ~~strikeout~~. No new matter has been added.

Claims 1-59 (cancelled).

RECEIVED

APR 26 2004

GROUP 3600

Claim 60 (Previously presented) An apparatus, comprising:

a force feedback member;

a first sensor configured to output a position signal, the position signal being associated with a position of the force feedback member;

an actuator, the actuator and the force feedback member collectively being configured to output force feedback based on the position signal; and

a second sensor configured to measure the force feedback output collectively by the actuator and the force feedback member.

61. (Currently amended) The apparatus of claim 60, wherein the force feedback member includes a jointed hinge member having at least a first portion and a second portion, at least one of the first portion and the second portion configured to output a force associated with the ~~force feedback~~position signal.

Claim 62 (Previously presented) The apparatus of claim 60, wherein the force feedback member includes a force applying platform, the force applying platform being configured to output a force associated with the force feedback.

Claim 63 (Previously presented) The apparatus of claim 62, further comprising:
a force application-feedback interface, the force applying platform being biased away from the force feedback interface by a biasing member.

Claim 64 (Previously Presented) The apparatus of claim 62, the second sensor further comprising:

a force sensing platform, the force sensing platform being configured to determine a magnitude of the force applied by the force applying platform.

Claim 65 (Previously presented) The apparatus of claim 60, wherein the force feedback is applied at least in part by a fluid.

Claim 66 (Previously presented) The apparatus of claim 60, wherein:
the force feedback is a simulated texture; and
the force feedback member further includes a force applying platform, the force applying platform including at least one texture-simulating element configured to simulate texture associated with the force feedback.

Claim 67 (Previously presented) The apparatus of claim 66, wherein said texture simulating element is a pin.

Claim 68 (Previously presented) The apparatus of claim 67, wherein the pin is configured to selectively extend and retract from a force feedback application portion of the force applying platform.

Claim 69 (Previously presented) The apparatus of claim 66, wherein said texture-simulating element is a fluid stream.

Claim 70 (Previously presented) The apparatus of claim 60, wherein the force feedback member further includes:

an elongated element; and

at least one guide element coupled to the elongated element, the elongated element being configured to output force feedback based on a force feedback signal.

Claim 71 (Previously presented) The apparatus of claim 70, wherein the elongated element is a tendon.

Claim 72 (Previously presented) The apparatus of claim 70, wherein the elongated element is a tubular member carrying a fluid.

Claim 73 (Previously presented) A method, comprising:

 outputting a position signal associated with a position of a force feedback interface;
 receiving a force feedback signal associated with the position signal;
 outputting force feedback via the force feedback interface with at least one of a plurality of force feedback members, the outputting the force feedback being based on the force feedback signal; and
 determining a magnitude of force feedback output at the force feedback interface.

Claim 74 (Previously presented) The method of claim 73, further comprising:

 outputting a texture feedback via the force feedback interface of at least one of the plurality of force feedback members based on the force feedback signal.

Claim 75 (Previously presented) The method of claim 74, further comprising:

 moving a pin from a first position which is removed from the force feedback interface to a second position disposed adjacent to the force feedback interface.

Claim 76 (Previously presented) The method of claim 73, further comprising:

 moving a force applying platform from a first position which is removed from the force feedback interface to a second position which is located at the haptic force feedback interface, force feedback being output in response to the moving.

Claim 77 (Previously presented) An apparatus, comprising:

- a force feedback member, the force feedback member receiving a force feedback signal;
- a first sensor, the first sensor outputting a position signal, the position including information relating to the position of the force feedback member;
- an actuator outputting force feedback based on the position signal; and
- a second sensor, the second sensor outputting an applied force signal based on the force feedback output.

Claim 78 (Previously presented) A method, comprising:

- detecting a position of a force feedback interface;
- outputting a position signal based on the position of the force feedback interface;
- receiving a force feedback signal based on the position signal;
- outputting force feedback via the force feedback interface using at least one of a plurality of force feedback members, the outputting the force feedback being based on the force feedback signal; and
- detecting a magnitude of the force feedback output at the force feedback interface.